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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/437,418 11/10/99 KARBASSI

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000128 MMC2/1219
HONEYWELL INTERNATIONAL INC.
101 COLUMBIA ROAD
P O BOX 2245
MORRISTOWN NJ 07962-2245

EXAMINER

MARTIN, J

ART UNIT	PAPER NUMBER
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2855

DATE MAILED:

12/19/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/437,418

Applicant(s)

KARBASSI ET AL.

Examiner

Lilybett Martir

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claims ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 November 1999 is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. & 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 18) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other:

DETAILED ACTION

Drawings

New formal drawings are required in this application because the margins (Fig(s). 2, 5 and 7) are not acceptable, the thickness and definition of the lines, numbers and letters (Fig(s) 1-8) is poor and non-legible, the connected views (Fig(s). 2 and 4) are not acceptable, and there are lead lines without numbers in Fig. 5. Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the Patent and Trademark Office no longer prepares new drawings.

Specification

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Abstract

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 250 words. It is important that the abstract not exceed 250 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," and claim language such as "includes", etc.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-29 provide for the use of a sensor package and a sensing element, but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

Claims 1-29 are rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd. v. Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 4-6, 10-12, 18-21, 25-27 are rejected under 35 U.S.C. 102(b) as being anticipated by Maurer (Pat. 5,184,107). Maurer teaches the claimed invention including:

- A sensor package (Claim 1) that includes a force sensing element (Col. 1, line 53), and a housing (Col. 1, line 59) that supports the force sensing element in a way that is substantially coplanar (Fig. 2).
- A sensor package (Claim 4) with a housing that includes a well (14) and a shelf (28), where the shelf supports the sensing element within the well (Col.3, lines 22-24), and where the shelf has a depth substantially matching the thickness of the sensing element (Fig. 2).
- A sensor package (Claim 5) where the housing has a connection pad within the well (Fig. 5A), where the sensing element has a connection pad (Col. 4, lines 7-10), where the connection pads of the housing and the sensing element are electrically coupled together when the sensing element is supported by the shelf of the housing (Col. 4, lines 5-10).
- A sensor package (Claims 6 and 12) where a conductive adhesive (Col. 4, lines 5-7) couples the connection pads of the housing and the sensing element.
- A sensor package (Claims 9, 15, and 22) where the shelf (28) has a reservoir that holds the conductive adhesive (Col. 3, lines 22-24).

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- A sensor package (Claim 10) where the shelf prevents the conducting adhesive from migrating to prevent electrical shorting (Col. 3, lines 34-35).
- A sensor package (Claim 11) where the housing has a connection pad (Fig. 5A), where the sensing element has a connection pad (Col. 4, lines 7-10), and where the connection pads of the housing and the sensing element are electrically coupled together when the sensing element is supported by the shelf of the housing (Col. 4, lines 5-10).
- A sensor package (Claim 18) that includes a force sensing element (Col. 1, line 53), a housing (Col. 1, line 59) a well (14), and shelves inside the well (Col. 3, lines 22-25) that support the force sensing element in a way that is substantially coplanar (Fig. 2).
- A sensor package (Claim 19) where the housing has a connection pad within the well (Fig. 5A), where the sensing element has a connection pad (Col. 4, lines 7-10), where the connection pads of the housing and the sensing element are electrically coupled together when the sensing element is supported by the shelves of the housing (Col. 4, lines 5-10).
- A sensor package (Claim 20) where a conductive adhesive (Col. 4, lines 5-7) couples the connection pads of the housing and the sensing element.
- A sensor package (Claim 21) where the shelves prevents the conducting adhesive from migrating to prevent electrical shorting (Col. 3, lines 34-35).
- A method of packaging a force sensing element (Claim 25) by applying the force sensing element to a housing (Col. 4, lines 5-13) so that the element

and the housing are substantially coplanar (Fig. 2), and attaching the force sensing element to the housing (Col. 4, lines 14-20).

- A method (Claim 26) where a housing includes a well (14) and a shelf (28), where the shelf has a depth substantially matching the thickness of the sensing element (Fig. 2), and where the shelf supports the sensing element within the well (Col.3, lines 22-24) when the sensing element is applied (Col. 4, lines 5-13).
- A method (Claim 27) where the housing has a connection pad (Fig. 5A), where the force sensing element has a connection pad (Col. 4, lines 7-10), where the connection pads are bonded to the force sensing element (Fig. 1) so that the force sensing element is attached to the housing, with the connection pads of the housing and the sensing element electrically coupled together (Col. 4, lines 5-10).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Maurer in view of Sokn (Pat. 5,996,419). Maurer discloses the claimed invention including a sensor package with a housing that contains a well (14) and a shelf (28), where the

shelf supports the sensing element inside the well, except for a sensing element with a part of it's surface that protrudes above the housing surface.

Sokn discloses a pressure sensor with a part of its surface protrudes above the housing surface (Fig. 1).

It would have been obvious at the time the invention was made to a person having ordinary skill in the art, to modify the sensor package of Maurer for the purpose of having a part of the force sensing element that protrudes above the housing surface.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Maurer in view of Sokn (Pat. 5,996,419). Maurer discloses the claimed invention including a sensor package with a housing that contains a well (14) and a shelf (28), where the shelf supports the sensing element inside the well, except for a sensing element with a part of it's surface that is depressed with respect to the housing surface.

Sokn discloses a pressure sensor with a part of its surface that is depressed with respect to the housing surface (Fig. 5).

It would have been obvious at the time the invention was made to a person having ordinary skill in the art, to modify the sensor package of Maurer for the purpose of having a part of the force sensing element that is depressed with respect to the housing surface.

Claims 7, 13, 16, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maurer in view of Grey (Pat. 3,863,192). Maurer discloses the

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claimed invention except for a membrane covering the surfaces of the housing and the sensing element in order to provide electrical isolation to the sensor package.

Grey discloses a sensor package that includes a membrane (Col. 3, lines 15) that provides electrical isolation to the sensor package.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art, to modify the sensor package of Maurer for the purpose of having a membrane covering the same that provides electrical isolation to the sensor package.

Claim 8, 14, 17, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maurer in view of Sokn (Pat. 5,996,419). Maurer discloses the claimed invention except for a membrane covering the surfaces of the housing and the sensing element in order to provide environmental protection to the sensor package.

Sokn discloses a sensor package that includes a membrane (Col. 3, lines 11-12) that provides environmental protection to the sensor package.


It would have been obvious at the time the invention was made to a person having ordinary skill in the art, to modify the sensor package of Maurer for the purpose of having a membrane covering the same that provides environmental protection to the sensor package.

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lilybett Martir whose telephone number is (703)305-6900. The examiner can normally be reached on 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Benjamin Fuller can be reached on (703)308-0079. The fax phone numbers for the organization where this application or proceeding is assigned are (703)305-3432 for regular communications and (703)305-3432 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0956.


Lilybett Martir
Examiner
Art Unit 2855

LM
December 14, 2000


Benjamin A. Fuller
Supervisory Patent Examiner
Technology Center 2200